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(54) Title: IMPROVEMENTS IN OR RELATING TO ULTRASONIC MOTORS

(57) Abstract

An ultrasonic motor is described which uses radial vibrations of an electro-active material disc (7) amplified by one or more flexensional diaphragms (6) to drive a rotor (4) pressed in frictional contact with the diaphragms (6) by a force imposed by a spring (3) or magnetic attraction. The vibrations are converted by elastic fins (5) into rotary motion of the rotor (4). The motor can be operated in any resonant mode that generates vibration at the surface perpendicular to the contact area. Versions of the motor with one or two rotors are disclosed with the two rotor version being used to produce an output in the same direction or opposite directions.

